UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,938	06/21/2001	Paul Martin	12957-002001	4866

26161   7590   06/03/2004

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EXAMINER
SAIN, GAUTAM

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		09/886,938	MARTIN ET AL.
		Examiner	Art Unit	
		Gautam Sain	2176	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 November 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-9</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/17/03</u>.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1)   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1-1)   Claims 1, 7 are rejected under 35 U.S.C. 102(b) as being anticipated by <u>Liaw</u>

et al (US 5572644, issued Nov 1996).

        Regarding claims 1, Liaw teaches "providing ... cube data definition language"

(ie., cube ... nomenclature)(col 10, line 1 – col 11, line 25).

        Liaw teaches "providing the spreadsheet ... spreadsheet expressions" (ie.,

forumula ... cell ...)(col 11, lines 40-67; fig 4H-4J show calculations)

        Liaw teaches "parsing ... expressions" (ie., parsing ... in a spreadsheet)(col 18,

lines 15-30).

        Liaw teaches "transforming ... cube entities" (ie., 2-D block ... 3-D cube format ...

3-D blocks dragged and dropped)(col 9, line 63 – col 11, line 65).

        Liaw teaches "causing ... data storage" (ie., copy the model ... copies of

formula)(col 11, lines 50-55).

        Regarding claim 7, Liaw teaches "interactive dialog ... method" (ie., GUI ... user

may supply additional information)(col 6, lines 30 – 57).

Claim Rejections - 35 USC § 103

2)   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2-1)   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liaw

et al (US 5572644, issued Nov 1996), in view of Tortolani et al (US 6317750, Filed

Oct 1998).

Regarding claim 8, Liaw does not expressly teach, but Tortolani teaches "…

add-in to a spreadsheet application" (ie., spreadsheet add-in)(col 7, line 31, fig 2).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Liaw to include spreadsheet add-in as taught by Tortolani, providing

the benefit of an automated and intelligent process for replicating user-entered formulas

to manipulate multidimensional data in a spreadsheet user interface, where the user

keys in formulas and types in repetitive data which is error-prone (Tortolani, col 3, lines

1-16).

2-2)   Claims 2, 3, 4, 5, 6 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Liaw et al (US 5572644, issued Nov 1996), in view of Tortolani

et al (US 6317750, Filed Oct 1998), further in view of Dekimpe et al (US 6542895,

filed Aug 1999).

Regarding claim 2, Liaw does not expressly teach, but Dekimpe teaches

"parsing … expressions" (ie., fact tables …)(col 8, lines 24-36, line 62)(ie., notebook

identifier)(col 18, line 15-55).

Liaw does not teach, but Dekimpe teaches "transforming ... spreadsheet fact ... cube fact expression" (ie., dimension is added in fact table)(col 15, lines 10-40).

Liaw teaches "transforming ... derivative expressions ... data definition language" (ie., copying a 2-D block into a 3-D block cube using the nomenclature ... copying formula, models)(col 10-11).

Liaw teaches "submitting the set ... cube fact entities"(ie., information cells ... cube of cells)(col 9, line 63 – col 10, line 50)(ie., fact table ... cube)(col 15, lines 10-40).

Liaw teaches "submitting ... cube derivative entities" (ie., copying blocks of cell in 3-D block ... editing of formulas)(col 11, lines 40-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Liaw to include fact tables and adding dimensions in fact tables as taught by DeKimpe, providing the benefit of improving multi-dimensional restructure performance when adding or removing dimensions and copying data from the original table into new tables (DeKimpe, Abstract section).

Regarding claim 3, Liaw does not teach, but Dekimpe teaches "moving data ... fact expression" (ie., copying ... moves the data from table)(col 14, lines 27 – 39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Liaw to include copying and moving data to and from tables in fact tables as taught by DeKimpe, providing the benefit of improving multi-dimensional restructure performance when adding or removing dimensions and copying data from the original table into new tables (DeKimpe, Abstract section).

Regarding claim 4, Liaw does not teach, but DeKimpe teaches "multi-dimensional storage ... fact entities" (col 15, lines 10-23).

Liaw teaches "parsing the ... expressions possibly being empty" (ie., parsing .. in a spreadsheet)(col 18, lines 15-30).

Liaw teaches "transforming ... cube data definition language" (ie., cube ... nomenclature)(col 10, line 1 – col 11, line 25).

Liaw teaches "submitting ... cube derivative entities" (ie., copying blocks of cell in 3-D block ... editing of formulas)(col 11, lines 40-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Liaw to include multidimensional storage and fact entities as taught by DeKimpe, providing the benefit of improving multi-dimensional restructure performance when adding or removing dimensions and copying data from the original table into new tables (DeKimpe, Abstract section).

Regarding claim 5, Liaw does not teach, but Dekimpe teaches "moving data ... fact expression" (ie., copying ... moves the data from table)(col 14, lines 27 – 39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Liaw to include copying and moving data to and from tables in fact tables as taught by DeKimpe, providing the benefit of improving multi-dimensional restructure performance when adding or removing dimensions and copying data from the original table into new tables (DeKimpe, Abstract section).

Regarding claim 6, Liaw teaches "consolidating ... cube expression ...

calculation ... consolidation" (ie., consolidation ... aggregation)(col 7, lines 25-40)(ie.,

consolidation ...)(col 1, line 58 – col 2, line 60).

2-3)   Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over <u>Liaw</u>

et al (US 5572644, issued Nov 1996), in view of <u>Dekimpe</u> et al (US 6542895, filed

Aug 1999), further in view of <u>Savage</u> et al (US 6604110, filed Oct 31, 2000).

Regarding claim 9, Liaw does not expressly teach, but Savage teaches "a

central processing unit ... computer-readable instructions" (ie., fig 2 shows a CPU, item

48; BUS, item 50, memory, item 60, 58, 37; Graphical User Interface, item 66).

Liaw teaches Liaw teaches "providing ... cube data definition language" (ie., cube

... nomenclature)(col 10, line 1 – col 11, line 25).

Liaw teaches "providing the spreadsheet ... spreadsheet expressions" (ie.,

forumula ... cell ...)(col 11, lines 40-67; fig 4H-4J show calculations)

Liaw teaches "parsing ... expressions" (ie., parsing ... in a spreadsheet)(col 18,

lines 15-30).

Liaw teaches "transforming ... cube entities" (ie., 2-D block ... 3-D cube format ...

3-D blocks dragged and dropped)(col 9, line 63 – col 11, line 65).

Liaw teaches "causing ... data storage" (ie., copy the model ... copies of

formula)(col 11, lines 50-55).

Liaw does not teach, but Dekimpe teaches "moving data ... fact expression" (ie.,

copying ... moves the data from table)(col 14, lines 27 – 39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Liaw to include copying and moving data to and from tables in fact tables as taught by DeKimpe, providing the benefit of improving multi-dimensional restructure performance when adding or removing dimensions and copying data from the original table into new tables (DeKimpe, Abstract section), and further to include a CPU, BUS, memory, GUI as taught by Savage, providing the benefit of supporting an on-line analytical processing to analyze groups of records that share common field value (Savage, col 1, lines 35-40).

Other Cases

3)   A.   Dionne et al (US 20020133478, filed Mar 16, 2001).

     B.   Bensoussan et al (US 6581068, filed Feb 2000).

     C.   Bowman-Amuah (US 6256773, filed Aug 1999).

     D.   Reddy et al (US 6574619, filed mar 24, 2000).

     E.   Malloy et al (US 6629102, filed Jul 28, 2000).

     F.   Pouschine et al (US 5918232, issued Jun 29, 1999).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam Sain whose telephone number is 703-305-8777. The examiner can normally be reached on M-F 9-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (703)305-9792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Gautam Sain

JOSEPH FEILD

SUPERVISORY PATENT EXAMINER